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ABSTRACT

Proceedings of the 1981 Creative Responses Conference, which explored approaches to the rapidly changing realities of postsecondary and higher education, are presented. The following major addresses and authors are included: "Hard Times: Constraints or Opportunities," Dale Parnell; "Leadership in the Challenge of Global Competition," George B. Brain; "Education--The Future, the Federal Role, and the Funds--A Projection," Jennifer Wellborn. Additionally, the following workshop summaries are presented: Adult learners--transitions, tasks, and trigger events; the value of a liberal arts education in the world of work; education in 1984; multicultural education: a positive response to changing educational realities; applying research and development products to educational and administrative problems in higher education; meeting the community's economic needs--a model program for contracting with business and industry; liberal skills and cognitive mapping, internationalizing the curriculum, microcomputers in higher education: the state of the art; creative responses to "artesians," "attritors," and other troublesome critters or what works in student retention; marketing: developing an institutional strategy; and small group action planning and large group feedback. The conference was designed to encourage action planning that could enable effective adaptation of potential responses to the realities of different campuses. (SW)

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CREATIVE RESPONSES TO CHANGING REALITIES

A Conference for Northwest Postsecondary and Higher Education

November 3-5, 1981
Marriott Hotel, Portland, Oregon

The Creative Responses Conference held in November of 1981 provided participants with opportunities to explore a variety of successful approaches to the rapidly changing realities of postsecondary and higher education. The purpose of this proceedings book is to provide a permanent record of presentations, workshops and other information which can serve as an ongoing reference. It is hoped that participants, presenters and the Conference co-sponsors as well as these materials will be seen as possible future resources. This document is also offered as a part of the process of achieving one of the Conference's main goals: To encourage action planning which could enable effective adaptation of potential responses to the realities of different campuses.

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Northwest Regional Educational Laboratory

Northwest Program Development and Coordination Center

Conference Coordinator: Michael Gordon, Highline Community College, Midway, Washington 98031, (206) 433-8590

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CONFERENCE PROGRAM Creative Responses to Changing Realities

Tuesday, November 3, 1981

6:00—8:00 PM Registration and No-Host Bar

Wednesday, November 4, 1981

8:30 AM Registration and Coffee

9:00 AM Opening Session and Keynote Address

INTRODUCTION Dr. John N. Terrey, Executive Director, Washington State Board for Community College Education

SPEAKER Dr. Dale Parnell, President, American Association of Community and Junior Colleges (AACJC)

Hard Times: Constraints or Opportunities?

American Community Colleges face more opportunities today than ever before. There are rich possibilities ahead for those community colleges that remain dynamic rather than static. The 1980s will present some imposing restraints or grand opportunities for community college leaders, depending on one's point of view. Let there be no doubt that changes of one kind or another will occur. The main question is: will they happen by chance or by direction, and who will provide the leadership?

9:45 AM Concurrent Workshops (Series A) and Forum for Presidents

Forum for Presidents with Dale Parnell, President, AACJC. Hosted by Dr. Verne Duncan, Oregon State Superintendent of Public Instruction; Dr. John N. Terrey, Executive Director, Washington State Board for Community Colleges; and Dr. Robert R. Rath, Executive Director, NWREL.

A1 Adult Learners—Transitions, Tasks and Trigger Events

This workshop will provide an overview of adult development including the tasks and marker events of adult stages; anatomy of life transitions; and methods adults use to cope with problems of transition. It will also develop an understanding of the needs of adult learners in the 80s. Ideas for relating changes in current work ethic and social environment with program development for adults will be explored. Suggestions for the role of instructors in helping adults in transition will be given. *Marilyn Clark, Unit Coordinator, Adults in Transition, Education and Work Program, NWREL*

A2 The Value of a Liberal Arts Education in the World of Work

The education needs of liberal arts students are changing. This workshop will focus on identifying those needs and developing creative responses for liberal arts educators and administrators for addressing the world of academe and the world of work. *Peggy Marston, Cooperative Work Experience Coordinator in Language Arts and International Education, Lane Community College, Eugene, Oregon*

A3 Education for 1984

The future of education will be looked at from two different points of view. One approach will examine the creative potential of technological innovations. The second presentation will deal with the importance of the humanities in a technological age using Orwell's *1984* as a focal point for discussion. *Gerald Rasmussen, Dean of Instruction, Lane Community College, and Dr. John Rulifson, Dean of Instruction, Southwestern Oregon Community College.*

12:30 PM Lunch Session

INTRODUCTION Dr. Robert R. Rath, Executive Director, Northwest Regional Educational Laboratory

SPEAKER Dr. George B. Brain, Dean, College of Education, Washington State University

Leadership in the Challenge of Global Competition

2:00 PM Concurrent Workshops (Series B)

B1 Multicultural Education: A Positive Response to Changing Educational Realities

Multicultural education is a positive response to the changing educational realities of a pluralistic society and a diverse student population. Participants in this session will be provided with a conceptual framework for multicultural education and will have the opportunity to engage in small group experiential activities focusing upon their attitudes and perceptions about culture, ethnicity and multicultural experiences. Participants also will be provided with ideas for infusing multicultural education into their institutions. *Dolores Heisinger, Director, Multicultural Inservice Training Project, NWREL*

B2 Applying Research and Development Products to Educational and Administrative Problems in Higher Education

A number of processes which administrators may use to identify and clarify educational and/or administrative problems will be presented. This will be followed by discussion of how to locate R&D products which might be useful in solving the identified problem or problems. Decision making processes for selecting potentially useful R&D products will be included. *Jack Allen, Director, Regional Services Program, NWREL*

B3 Meeting the Community's Economic Needs—A Model Program for Contracting with Business and Industry

This workshop will focus on a tested and proven approach that colleges and universities can use in meeting the specific educational and training needs of business, industry and public agencies. *Donald M. Fiser, Director, Institute for Community Assistance, Portland Community College*

B4 Liberal Skills and Cognitive Mapping

This will be a "working" session devoted to the development of personally useful products by and for each participant. The first half of the session will concentrate on the processes of: (a) identifying and (b) facilitating the learning and assessment of career-transferable liberal skills. The second portion of the workshop will include the development of learning "maps" to trace individualized curricular patterns that contribute to the acquisition and sharpening of liberal skills through a combination of classroom learnings. *Dr. Urban Whitaker, Council for the Advancement of Experiential Learning (CAEL) Regional Manager for California, Hawaii, Nevada and Arizona*

5:00 PM Attitude Adjustment Hour

Thursday, November 5, 1981

8:30 AM Breakfast Roundtables

An opportunity to follow up with workshop leaders or for exploration of additional topics.

9:30 AM Concurrent Workshops (Series C)

C1 Internationalizing the Curriculum

The purpose of this workshop is to demonstrate and discuss several approaches to planning, developing and implementing internationalized curriculum at two and four year colleges and universities. Among topics to be discussed will be structure, content and curricular supports. Particular focus will be on the elements which make up a comprehensive international education program. *Dr. Mordechai Rozanski, Chair, Pacific Northwest International/Intercultural Education Consortium; Director, Office of International Education, Pacific Lutheran University, Tacoma, Washington*

C2 Microcomputers in Higher Education: The State of the Art

This session will focus on the current status of microcomputer use in postsecondary and higher education. Capabilities and limitations of microcomputers for instructional and administrative uses will be discussed. A hands-on demonstration of instructional software from MicroSIFT and CONDUIT (clearinghouse for microcomputer courseware) will be given. *Dr. Judith Edwards-Allen, Director, Computer Technology Program, NWREL*

C3 Creative Responses to "Artesians," "Attritors," and Other Troublesome Critters OR What Works in Student Retention; Does it Cost Any Money, and Do We Need It Today?

This session will include an overview of current environmental and programmatic developments that may influence student retention; presentation of several innovative, cost efficient and effective student retention programs; and a panel discussion on effective retention practices for the adult learner. *Guy Papoy, Director of Counseling, Edmonds Community College, Lynnwood, Washington*

C4 Marketing: Developing an Institutional Strategy

This workshop is designed to help a college or university prepare and implement an institution-wide marketing plan. It is also intended to help program administrators prepare marketing plans for their own units. The workshop will deal with basic marketing concepts, the exchanges between an institution and its publics, developing a market research program, and the process of market planning at the institutional and program unit levels. *Dr. David L. Kast, American Council on Education/Higher Education Management Institute, Director, Western Program Center, San Francisco, California*

12:00 PM Lunch Session

INTRODUCTION Dr. Robert R. Rath, Executive Director, Northwest Regional Educational Laboratory

SPEAKER Mrs. Jennifer Wellborn, Editor, *The Guide to Federal Assistance*, LaJolla, California

Education—The Future, The Federal Role, and the Funds—A Projection

1:30 PM Small Group Planning and Large Group Feedback

Small group facilitated discussions designed to encourage identification of specific local realities and planning for the development or adaptation of appropriate creative responses. The session will conclude with feedback to the large group.

3:30 PM Conference Closing

"Creative Responses to Changing Realities" brought together some of the brightest, most knowledgeable, and articulate people on the local and national education scene and focused their thoughts on a realistic assessment of the current unpleasant "realities" and some highly useful, creative ideas for coping with it...

The small group discussion sessions at the end of the day gave us all a chance to brainstorm and to synthesize all of the ideas and information we had been exposed to over the past two days.

George A. Delaney
Associate Dean for Academic Education
Skagit Valley College
Mount Vernon, Washington

DR. DALE PARNELL, PRESIDENT
AMERICAN ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES
Wednesday, November 4, 1981 9:00 A.M.

Introduced by: Dr. John N. Terrey, Executive Director, Washington State Board for Community College Education

HARD TIMES: CONSTRAINTS OR OPPORTUNITIES

American colleges face more opportunities today than ever before. There are rich possibilities ahead for those colleges that remain dynamic rather than static. The 1980's will present some imposing restraints or grand opportunities for college leaders, depending upon one's point of view. Let there be no doubt that changes of one kind or another will occur. The main question is: Will they happen by chance or by direction, and who will provide the leadership?

Edmund J. Gleazer, Jr., immediate past president of the American Association of Community and Junior Colleges, has stated the challenge in his new book, The Community College: Values, Vision, and Vitality.

> "It is time for us to consider together - and with those whose influences join ours to shape the community environment - the emerging realities in that environment which set before us tasks and new learning ventures to match the best skills, talents, and leadership qualities that we can bring to them. Above all, we must bring to the job ahead a sense of the values in it, and the vision and vitality needed to get it done."

Whatever the viewpoint, there can be no question that fiscal constraints and a changing society are forcing a painful review of public policy - not exempting colleges. What are some of the major challenges facing colleges in this decade?

IMAGE

The college president has no more important task than that of continuously clarifying and emphasizing the mission of the college. When the goals and priorities of any organization are fuzzy, everything else in the organization takes on a fuzzy or out-of-focus dimension.

San Joaquin Delta College in Stockton, California (the college of this writer), completed a magnificent new community college campus prior to Proposition 13. A most frequent question asked by visitors as they walk around this beautiful new campus for the first time was, "What a nice campus for a junior college. When are you going to become a four-year college?" Syndicated columnist Walter Lippmann has said that all of us operate on the basis of pictures in our heads and not real facts, and I suspect that is true. The first-time reaction of some visitors to this new community college campus reveals an inaccurate or fuzzy picture in the head about the mission of a community college. What this picture in the head may mean is that we are endeavoring to push community college programs into the 1980's without realizing that the public's perception, at least in part, is frozen to a "junior" college image of an earlier day.

A recent book entitled Second Best, authored by a community college faculty member, provides some provocative and abrasive insights into another community college "picture in the head":

> "There are significant parallels between the limited goals of community college students and the goals of the faculty and of the institution itself. While going to a two-year college is second-best for the students, teaching in one is second-best for the faculty, and being one is second-best for the college. The functions that these colleges perform from technical and career training to lower-level transfer programs for students who want to enter four-year colleges are generally regarded as second and third-rate educational functions when compared with the functions of four-year colleges and universities. The attitude of second-best which results from this permeates the entire institution..."

Regardless of how irritating this image may be, this writer is verbalizing what some people think, and will continue to think, until community college leaders mount an all-out campaign to change that image.

The word for the American community college is "opportunity." The community college gives just about everyone a fair chance to succeed not just at college - but at the kind of college that places vocational-technical training on a status with other learning. The academically-talented as well as the technically-talented flow through that open door. Community colleges proudly open doors for all kinds of people: rich, poor, thin, fat, tall, short, fast, slow, handicapped, old, young, brilliant, average, ethnic minorities, men, and women.

Community college leaders must vigorously counter the notion that giving people an opportunity means being second-rate. As John Gardner has said, "There is excellence or shoddiness in every line of human endeavor. We must learn to honor excellence (indeed, reward it) in every socially-accepted human activity, however humble the activity, and to scorn shoddiness, however exalted the activity."

True, a community college must make enormous adjustments for individual variations in ability, interests, and aptitudes. However, the community college endeavors to stretch each individual student - and expects the student to strive for excellence within his or her individual reach.

If an organization (or a community) holds conflicting views about excellence, or fails to value excellence, it downgrades the spirit of the whole operation. A pressing opportunity for this decade is to clarify the college image of providing opportunity with excellence.

INCONSISTENT PRACTICES

Lack of congruence between what we say and what we do remains a problem in some colleges. As an example, there is no specific curricular home in some colleges for most of the major issues facing this country today, i.e., energy, unemployed and unemployable youth, intergroup human relations, consumerism, family disintegration, and quality of life subjects. Where may adults find first-rate opportunities to continue to develop the competencies required to be a lifelong

learner or will we continue to label this as a remedial effort and not worthy of college status? Where may an adult find the opportunity to develop the competencies required to cope with personal finances? It doesn't help to learn money-making skills without learning to spend wisely or save. The decade of the 1980's is giving colleges grand opportunities to relate general education requirements to the requirements needed to cope with modern life.

A second inconsistent practice revolves around the problem of "rediscovering the wheel." Many hundreds of exemplary practices can be identified in colleges across the nation. Why can't a national system be designed to routinely identify, validate, and disseminate information about these exemplary programs or materials? While there are organizations like the League for Innovation, Combase and ERIC that work hard at this task, the pattern is inconsistent and spotty. Budget constraints provide the stimulus to share exemplary college materials and practices into standard college practice. We no longer can afford the luxury of each college "rediscovering the wheel."

There is a third inconsistent practice. The major finding from educational research in the last 30 years is that the most important difference among learners is the speed of assimilating knowledge and skills. There are fast learners and there are slow learners. There should no longer be any dumb students or smart students. Another opportunity for the college is to match our administrative practices with differing learning styles and modes. Many of us cling steadfastly to the 12-week quarter, and a timedriven sequence for learning, despite the fact that we know that not every student is a 12-week learner. Many exciting exemplary practices are being developed among the colleges across the nation to address differing learning styles and modes.

One of the great revolutions in all of human history has been the electronic revolution in communications. Many colleges are directing this revolution toward improving teaching and learning. But by and large, most institutions of higher education remain somewhat aloof to the far-reaching possibilities.

ADVOCACY

Who speaks at the national and state levels for the colleges? Is it the American Council on Education, the American Association of Community and Junior Colleges, the National Education Association, the American Federation of Teachers, the Secretary of Education, the American Vocational Association? In California, a board of governors is the state-level ruling body for community colleges. Although it is the Board's good intention and goal of speaking for community colleges, many of the recent gubernatorial appointments to that body represent the faculties of the state's public and private universities. Do these appointments signal something about a "picture in the head" from state-level decision-makers about the community college mission?

Clear signals must be given at federal or state levels on the role and mission of colleges. The 1980's can be a grand opportunity for colleges to become an even more important state and national political force. This statement must not be misinterpreted. Many college leaders across the nation have given much political leadership in the past. But the question for today is whether structures that have represented colleges well in the past are adequate to

provide the unity and vigor required for the rapidly changing political environment of the future. The pervasive infusion of legal collective bargaining processes into the governance process of local colleges is a good example of a rapidly changing environment.

INNUMERABLE COMPETITORS

In the county of my former college, the federal Comprehensive Employment and Training Act (CETA) budget was an estimated $50 million, and the budget to operate San Joaquin Delta Community College was $28 million. This statistic alone should be sending us some messages. A whole rival community college system is springing up in CETA, operated by the mayors and county supervisors or commissioners all over the nation, with the active support and dollars from the federal Department of Labor. Perhaps it is time to enact an Urban Extension Act, something like the Rural Extension Act, whereby the land-grant universities and county governments get together to help citizens living in rural America. Why not utilize some of the current federal CETA funds to provide the funds to bring city governments and colleges together to initiate suburban-urban extension opportunities? We have had the greatest migration known to mankind in the last 50 years, with some 40 million people moving from the farms to the cities and suburbs, yet our funding structure remains linked to an agrarian era.

Urban life has taught us that when people are living closer together, there is increased alienation, increased crime, and increased inter-group human relations problems, just for openers. Again a tip of the hat must be given to those many urban college leaders that have moved out creatively to meet pressing urban needs. By and large, however, they are doing it on their own with little state or federal help.

There are many other college competitors. The military requires personnel desperately, and the military offers some tremendous educational opportunities.

Labor and industry are, at an increasing rate, setting up private training programs.

We noted in a recent issue of the Business Officer that increasing numbers of businesses--hospitals, banks, consulting firms, computer operations--are without benefit of any involvement with local colleges. The American Telephone and Telegraph Company, nation's largest employer, estimates that it invests $1.1 billion a year in developing courses and paying for instructors, facilities, travel and living expenses of participating employees...On any given day, 30,000 of the company's 1,040,000 employees are in these classes.

Altogether, according to the American Society for Training and Development, business and industry allocate more than $30 billion a year to education and training--almost as much as the total annual expenditure of the nation's publicly financed colleges and universities.

I recently asked a leading corporate officer why business and industry often seem reluctant to look to local colleges to help meet their education and training needs. Her answer, although not universally applicable, gives us some insight. She said, "Too many colleges want to meet us at the point of the colleges' need rather than at the point of our need. They often seem

reluctant to meet our training needs when we need it, where we need it, and according to our specifications."

All of this competition gives the community college great opportunity. As an example, the Urban Suburban Extension Act is an idea whose time has come. But it will not happen without a major national college push.

COOPERATION

Colleges have great responsibility to help feeder high schools and junior high schools to meet their demanding responsibilities. Our college roots go deep into these schools. Colleges have an obligation to coordinate programs with them and serve as a resource to them.

The near-monopoly of public education does not really exist in higher education, particularly in the field of adult education. Most of us have attended meetings on manpower training, adult education, community schools, community services, lifelong learning. Many important items are included on the agendas of these meetings, but not much time is usually spent on the subject of "linkages" with others involved in the same business, i.e., CETA, vocational rehabilitation, cooperative extension services, parks and recreation, libraries/museums, agencies on aging, chambers of commerce, and local school districts.

Colleges certainly play a key provider role. But they must also serve in a "broker" role matching adult education needs and other community resources. Some colleges have been very successful in "brokering" adult education programs and in so doing enhance their own goals and objectives.

With far more part-time students than full-time students, and far more older people, no longer can we talk about the "kids" in college. On the campus of most colleges you can't tell the faculty from the students in terms of age. As an example, at San Joaquin Delta Community College, the Senior Service Agency serves a low-cost (40¢) meal for senior citizens each lunch hour. Several hundred senior citizens are on campus for that low-cost meal, and many also take a class or two in the institution. Colleges are giving additional priority attention to older Americans. Rather than sitting in a rocking chair, colleges are helping senior citizens see new horizons and new opportunities for a fuller, richer life.

The active development and recruitment of minorities and women into math, sciences, and technologies will require some new commitments. Our community and nation will require the talent and support of these individuals if it is to be fully productive. One-quarter of all employed Americans are now in occupations classified as managerial, professional, or technical. It is predicted that this will increase greatly over the next 25 years. What does this mean for the college? What does it mean for student recruitment affirmative action efforts?

With the increasing pressure for new students, colleges are developing whole new marketing strategies in the competition for students. This competition can become a grand opportunity to meet individuals at the point of individual need, rather than faculty or administrative need.

In fact, how about telling the story of cooperative efforts among our colleges. There are many, many consortia and ad hoc examples of colleges working together to stretch dollars and serve students better.

Colleges have weathered storms over the years, and doubtless the 1980's will be no different. There will be many ways to view the challenges which will arise. Some will see them as major obstacles; others will see them as major opportunities. Whatever the view, the 1980's will give college leaders the opportunity to exercise their creative talents.

DR. GEORGE B. BRAIN, DEAN
COLLEGE OF EDUCATION, WASHINGTON STATE UNIVERSITY

Wednesday, November 4, 1981 9:30 A.M.

Introduced by: Dr. Robert R. Rath, Executive Director, Northwest Regional Educational Laboratory

LEADERSHIP IN THE CHALLENGE OF GLOBAL COMPETITION

Tom Olson told me when he invited me to meet with you today that he wanted me to chat a bit about the growing demands on postsecondary institutions and their personnel for greater collaboration with business and industry. He also told me that I ought to utilize Buckminster Fuller's concept of "doing more with less."

I really want to talk with you a bit about the contributions that research and development can make in helping postsecondary institutions cope with at least these two new realities. You've already had better presentations than I'm going to make but let me chat a bit about the problem of global competition.

One of our distinguished colleagues has warned that our American institutions will have to shift their focus from national to global competition to help maintain economic leadership in the future. The United States needs to take the best from other systems and other countries as well as our own: to shift the tax structure to put more emphasis on product development, to shift shareholder equity from mature to innovative industries, to provide banks with the incentive to support innovation, and finally to look for ways to diminish the adversary relationships between business and government.

What are our continued strengths? Why can we still win in the competitive field of postsecondary education?

First and foremost, we still have a very competitive edge in exactly those areas where new technologies are going to contribute, that is, the areas that are dominated by software approaches to problem solving. The development of systems for the successful manipulation of text and graphics depends upon software concepts, but to rely upon that understanding we have to improve our research and development activities.

Another reason why we can still win the global struggle has to do with our American system of education which produces innovative and concept oriented graduates. It is this feature of our postsecondary educational programs that other countries hope to import. But they do not have it yet in all of our global competitors. The American system at its best turns out a superior grade of graduates for purposes of innovation and development.

There are several messages for all of us in postsecondary education from these observations.

First - we must recognize the need to change. We are in a global competition of nations. We no longer can structure our processes, our regulations, or our approach to the interface between government and business as though we have only to deal with the American market place.

At the end of World War II, the United States represented more than half of the productive capacity of the world. At the present time, we represent about 25% of the productive capacity of the world. That is despite the limitations of a very huge and productive capacity. It is so large that we do seriously affect the rest of the world, but it is not so dominant that we can be oblivious to what happens in the rest of the world. Our American institutions still have the lead in certain areas in science and technology - especially the software areas. The United States still overwhelmingly represents the largest productive capacity in the world. That is a strength upon which we can build.

Another message for our American postsecondary institutions is the "eclectic" - to select the best of our system as well as the best of our competitors. Let's not be saddled with the confinements and the inefficiencies of the "not invented here" attitude. We can learn from our colleagues in other nations about how to do our business, how to structure our regulations, how to deal with our capital structure, and all other related issues.

Another message for us here in this country is to invest in human resources at all levels. Recognize the value of human resource and capitalize on the retention of its strengths and the development of its weaknesses. Labor itself must have an interest in the development of human resources and might be well advised to consider bargaining for educational rights as part of their bargaining interests and as a means for developing human resources.

An additional message from our competitors is for us to consider ways to shift capital structures to be more favorable for innovation and technological development. It has already been suggested that we develop a tax structure that permits tax credits for research and development, especially for the D part (the development part). Continued emphasis on basic research is important, but we might learn from our competitors that a strong emphasis on product development has led to superior products and therefore favorable competition in the global market.

Another suggestion is to prevent a shift of shareholder equity from industries that do not need the equities, that is, mature industries, to the innovative ones. At the present time if one wants to sell shares in one industry and buy shares in another, there is the usual tax on capital gain involved in that transfer. A policy that permitted a transfer or reinvestment within some fixed period of time would permit shareholders to migrate their money from the mature industries to the more innovative industries, without tax penalties. If the money were spent, that is, really spent on consumer goods, then it might be taxed. The suggestions is to tax spending, but not shifts in investment.

As an additional suggestion, one might through the tax structure provide banks with incentive for support of innovative industries. This would perhaps reduce the dependence of the corporation on shareholder equity and, therefore, on the influence of the shareholder to shift towards shorter run success.

Another suggestion is to look for ways to diminish the adversarial relationships between business and government. We might look toward the developments in the agricultural department as an example.

The most successful industry by any measure in the United States is agriculture, and only in the area of agriculture has there been created a specific

governmental department aimed at fostering the development of that industry. The Department of Agriculture was established in 1862, specifically to acquire and to diffuse among the people of this country useful information on agriculture in the most comprehensive sense of the word, and to procure, propagate and distribute among the people new and valuable seed and plants.

The Agri-Industry is a multi-interest business. It is farmers who invest in machines, equipment and supplies to produce foods and fibers on fertile land. The industry is also scientists, engineers, educators, manufacturers and financiers who provide for the multiple needs of the modern farmer and rancher.

In the past 120 years, the man on the land and those who serve with the farmers have written a brilliant chapter in the story of America's progress. The farmer was barely able to produce enough to feed himself and a family a century ago. Today, only 5% of our population are the farmers who produce the foods for the other 95% of us. Farm products are also our most plentiful and valuable exports. American agriculture is a one hundred billion dollar enterprise - the envy of the world.

To our urban dwellers agriculture today is meat and potatoes, fruits and vegetables, milk and eggs, and thousands of other wholesome foods - all products of soil, sun, water and toil. We are the best-fed citizens in the world, thanks to our land, our climate and our agri-industry. Although the Department of Agriculture is not single-handedly responsible, it was a major factor contributing to the development of the strongest agricultural economy in the world today. It is this agricultural economy that contributed the manpower and capital to the development of our industrial economy. Science, technology and education are the tools that have been used by the Department of Agriculture for that effort.

Another possibility to diminish the adversarial relationships between business and government would be considerations of revising our anti-trust laws, a movement which I thoroughly support and strongly urge. We may want to consider doing what the Japanese have done in providing a certain sheltering and nurturing of targeted industries by providing exemption from anti-trust laws during certain periods of development. Additionally there could be a thrust toward regulatory reform in the United States. This thrust is a great opportunity to do it right and take into account global competition.

We now face the American challenge to global competition. Our challenge is to develop methodologies for strategy and planning. We speak in terms of strategic processes and of strategic management. Strategic processes have to do with systematically identifying at the earliest possible moment the opportunities in defense that will influence the development of our economy. Strategic planning develops the processes and goals for incorporating the outputs of strategic management, and preparing the institutions to carry out those plans. If our American institutions in cooperation with business and industrial leaders cannot do better than we have done by developing better strategies, then we will suffer in global competition. We need to make the system work. Out of that we've got to find a better way for the public and the private institutions to work together. There are some excellent examples at the local and regional level of public-private cooperation. There are stirrings of this concept at the national level. We still have time and we still have a competitive edge.

We need to look at various attempts to develop a political-economic system that meets this challenge. On the one extreme we have the centrally planned

economy and on the other extreme we have the completely free economy. What I am suggesting is a middle ground toward which both the centrally planned economies and the free economies seem to be moving - a type of society sometimes called "co-evolutionary" which aims toward cooperative interface between the public and the private sector.

Many changes would have to occur in our system before that becomes possible, but we have the opportunity, and our postsecondary institutions ought to seize on that alternative while we still have the time. We need a concentrated attack on making the total system work. Capitalizing on this competitive edge would maintain our postsecondary institutions at a forefront that I am sure most of us would like to see.

Darwin believes in the survival of the fittest. But Toynbee pointed out that successful responses to external challenges do not take the form of overwhelming the challenge, but rather of incorporating the challenge to an inward self-determination. In other words, species survive by internalizing the external challenge. We need to internalize the challenge of global competition.

The startling economic development of Japan since World War II is truly an outstanding phenomenon. There are many reasons behind the success of the Japanese competitors. Some of them are very understandable and some of them provide some very strong lessons for us here at home.

In the first place, the Japanese view competition as a world gain and are quite aggressive in their global economic competition. Immediately following World War II, Japan imported Western technology through copying of American and European products ("pure copying" - reverse engineering if you like, with no innovation whatsoever, but copying the best of technologies from all countries of the world.)

The second step in their progression was to introduce product innovation - improving the product slightly without changing the basic concepts that much.

The third step in the progression was the importation of concepts. That is the stage in progress right now in the importation of concepts from the United States such as software, which have not yet been well developed by the Japanese. They also have imported concepts such as artificial intelligence (robotics.) They are importing these at the conceptual stage and doing their own product development; that distinguishes this from the second stage of simple product innovation.

Finally, they are planning the importation of this system that generated the concepts, the American educational system. The Japanese recognize that they have weaknesses in concept generation and that some of those weaknesses stem from their educational system. They have no computer jobs. Their system does not have room for mavericks. They need to import an educational system that will help remedy those weaknesses. They are planning an educational system that will deal with the two areas which they believe the United States to be pre-eminent, namely in the information sciences and in business methodologies.

The most important single factor in the Japanese success is that they have created a national strategic plan. They created the first one in their history as long ago as 1880 when the Meiji emperor decided to move the Japanese

people from the feudal society to an industrial world of power. All sectors of the Japanese society contributed to that drive.

A second important factor has to do with the nature of the relationship between the public and the private sector. Their public-private interface is a cooperative one, not an adversarial one. Many of the other reasons for Japanese success are a consequence of this cooperative approach. This is an important lesson for us here in the United States, and it is a lesson that we could have learned effectively right here at home.

A third important reason for Japanese success is strong emphasis on product development. The Japanese invest heavily in the product development stage of technology, sometimes sponsoring several competing products before selecting one for sale and mass production. They use research and development techniques for this particular purpose. For example, one Japanese company set up more than 30 separate product development teams for a line of electronic calculators, but kept only three models for production. There was a strong engineering thrust and a strong emphasis on quality of the product; some of this arises from the particular emphasis in the educational system on technical precision and competence.

A fourth reason for the success of the Japanese system is the capital structure in Japan. Within most of the major companies there is more reliance on borrowing and less reliance on equity capital from shareholders than in the United States. The banks and financial institutions take a longer range view than shareholders, thereby permitting corporate officers to take a long range view.

A fifth reason for Japanese success is the heavy emphasis on human resource development and investments. This emphasis carries through at all levels with workers as well as leaders with their companies. In our educational institutions we often hear today about life-long employment. There is an emphasis on retaining the expertise of the employees. There is less emphasis on shifting from company to company, or from institution to institution. The managers in the company are carefully moved from position to position, giving practical meaning to what we call, but often neglect, career development. Perhaps we should do more of the latter in our postsecondary institutions.

Those in industry that show promise are carefully nurtured and given opportunity for their development as managers and leaders. Sometimes these managers are interchanged with government officials to give this promising talent opportunities in government. More likely they are moved within the company but given assignments that cause them to interact with government officials in such a way that they learn the workings of government. We need to think about that in our postsecondary institutions.

The sixth reason for Japanese success has to do with their willingness to make heavy investments in productivity, generating systems and techniques. Japan has been investing heavily in the information and communication technologies, and recently has been giving heavy emphasis to robotics. Depending upon how one defines robots, some estimates would suggest that there are about 22,000 working robots in the world, of which 17,000 are in Japan.

A final reason for Japanese success in the world in economic competition has to do with the size of the companies. It is well known among economists that one can have, in certain cases, destructive competition. In the instances

where an industry is tightly organized and very price competitive, no single company can invest sufficiently in its future be it in research or capital investments for productivity increases to be competitive on the world scene.

There is a new factor that we have to consider in our view of the market place. Competition within our own domestic market place might have a beneficial effect, but a detrimental effect on the industry as a whole, in relationship to the world market place. Competitors may not be playing by the same rules that we are playing by or even playing the same game. Here in the United States we play a national game. The Japanese play a global game.

My advice today and my plea is to stand up and defend the tower. Let the critics write their books, but let the truth be known. Educators have served well and with distinction and honor. College and university personnel must be positive. We must be optimistic, articulate and confident. Ralph Waldo Emerson said it well in one sentence: "Nothing great was ever achieved without enthusiasm." In the midst of the hurricane of criticism about American educational systems, we must sit in the eye and stand strong in the face of the wind and the rain. We must always believe that our course is indestructible.

Again, I say that it is time that each of us defend the tower that we come from. We do have good news. Despite Buckminster Fuller's concept about shrinking resources and expanding expectations of postsecondary institutions, or "doing more with less", all is not gloomy. That's good news itself!

Several years ago in speaking at a conference, I told a story, and I would like to conclude my comments today with that thought once more. The story is told of the piccolo player who, in a moment of slight inebriation, and some spirit of braggadocio, boasted that he could play Beethoven's entire Fifth Symphony alone on the piccolo. Well, of course, when soberer moments came, he realized the possibility that no symphony was ever written for any single instrument, and no matter how great his skill on the piccolo, it would not be enough to interpret an entire symphony of a great master.

So it is today with our postsecondary institutions. None of us alone can accomplish the dreams and common objectives towards which we strive, but if we blend our efforts, then all can share in this common dream of equality of educational opportunity. When we blend our efforts we may hear the great overtones of symphony. We may hear the great melody; we may hear what the master really wrote.

Are you really ready to become a truly committed member of this band of postsecondary institutional players? Do you agree with my drumming? Will you march by my side in this activity? I sincerely hope so.

Thank you so much.

JENNIFER WELLBORN

Thursday, November 5, 1981

Introduced by: Dr. Robert R. Rath, Executive Director, Northwest Regional Educational Laboratory

"The Future, The Federal Role, and the Funds"

There was a sign recently on a college campus: "The meek shall inherit the earth, but the strong shall retain the mineral rights." That's what we are going to talk about; let's talk about first the future. First of all there are four things that have really in our century changed the world. One was the splitting of the atom, and the nuclear bomb. The second was the silicone chip, the third the satellite communications and the fourth is genetic engineering, the science of recombinant DNA. These four things have changed our world.

It will never be what we thought it was, and what we grew up in; if we're going to function in this world we have to accept this. We live in a different world; it's very much smaller. We can reach everybody very rapidly by satellite. We know what everybody else is thinking, we're all going to live longer and we are going to be healthier. Our population in the world is going to increase to more and more billions and we know more and our technology is better. Right now there is technology available so we could have a 21 minute subway ride from Los Angeles to New York. You would go by pneumatic tube; it could be done - it would be very expensive, but the technology is in place. One of these days you will shoot half way to Chicago going one direction; your chair will swivel around the other way and you will shoot the other way and off you'll climb. Another one from Chicago to Houston - it's possible!

There are already cars with brains, there are robots; we're going to talk about robots with tremendous brains. Machines are going to do things that we used to do. You can program a lawn mower - you just tell him to go from left to right and back to front, however you want and how tall you want your grass. There are going to be machines - there are already machines that paint things, that will dip things, that will do things in factories.

Communications--I'm sure you all know Comsat has a request before the Federal Communication Commission for their satellite television subsidy area. When this happens in another year there will be direct satellite to home television broadcasting minus the networks. There is already the Fortune Four which will start in February of this coming year through Satellite Business Systems to have entire electronic offices; they will simply not have to send paper back and forth anymore. One of those is Aetna Life Insurance. So if you have an accident, millions of bits of information per millisecond are going to be whooshing around these satellites. These innovations are going to require much more sophisticated workers.

Recombinant DNA is probably the most exciting thing of all that has happened, and I'm sure all of you are aware of the science. It is already doing things

they didn't believe they could do. They thought it would take ten years to develop enough interferon, which is the mechanism the body has to avoid disease, using recombinant DNA, but they are already producing it at 98% purity. Some of these things that recombinant DNA can do will have changed our world in an outstanding way--transplanting genes from amino acids, for digestive disorders, protecting plants from disease. They are working now on a way to take plants that can't withstand sand and salt, and teach them to be able to do this, so that we can grow things in the desert part of the world. Producing enough food is a terrible problem.

Monoclonal antibodies is probably the most exciting second generation from recombinant DNA; those are the single smart bombs. I'm sure you have read about those; we won't go into this a lot--we don't have much time. But where you can isolate some disease that one person has, develop the antibodies for that, going through a couple of processes in mice, then injecting them back into that person to give them immunity against their own disease--that's very exciting. They are beginning to isolate chemicals causing stress with recombinant DNA; the cause of strokes, errors in metabolism, ulcers, heart attacks and probably cancer will be solved in this way. There is a new way to save bone marrow,so that they can take it out of people, of little children with leukemia. The doctors can pull the bone marrow out, zap it with radiation and chemotherapy, clean up the bone marrow, and put it back in with nothing the matter with it. These things are working now in an experimental way. Isolating the substance used by the outer brain, they have discovered Alzheimer's disease, a form of premature senility. At Johns Hopkins it was just recently discovered that in the inner brain of people who died of Alzheimer's was this chemical, or lack of a chemical that is needed by the outer brain to function correctly.

Other uses of recombinant DNA are in the making--antibodies to analyze a patient's blood, insulin, and the human growth factor (they are producing it now in tremendous quantities), also increasing the yield of alcohol from corn (gasahol), animal proteins to improve our diets, bacteria which eat oil spills, extraction of scarce minerals from the soil, identification and replacement of defective genes, such as those which cause sickle-cell anemia or Tay-Sachs disease. A lot of these things used to be science fiction. They are not any more, because of recombinant DNA, a terribly exciting thing.

Another possibility for the future has to do with the global warming trend, where our ice caps are actually starting to melt, and by the year 2000 it is possible that Canada is going to be growing things, and Southern California and Nevada, and on up into Oregon, could be desert. It may change by just a few degrees of temperature, but what if we could develop renewable resources by this process, and be able to stop burning fossil fuels?

IBM is going into the robot business, it said in the Friday, October 30th Wall Street Journal--"IBM entry is expected soon in expanding robot industry." When IBM gets there you know darn well there's going to be money in it. General Electric has 100 robots right now. Those robots were expected to pay for themselves in fourteen months; in ten months they already have. They expect that by 1990 robots will replace between 1 and 3 million workers who do things like sheet metal, spray painting and similar good things. Robots will do them at roughly six dollars and forty cents an hour versus twenty dollars an hour

in salaries and benefits from human labor. Therefore--who's going to build a robot? Who's going to run the robots? Who didn't get a job because the robots did?

The next thing is, who's going to be trained for this neat new world that we are going to have? Well, illiteracy is out--it is passé. Labor is probably going to have to modify its demands, but Labor is beginning to recognize that, down the pike, managers have an absolute right to expect performance, and if they don't get it, robots will provide it. So therefore, they are going to expect excellence. Excellence on the part of the workers, who are going to have to be able to be trained in supervisory jobs. If you have a robot that can do something, and he can touch and feel and be reprogrammed, somebody has to reprogram him. Last night you may have heard on your local news that someone said that by 1985 we will have a shortage in this country of 100,000 computer engineers. These are people we need, technicians to program all these great new things, and biologists with the technical requirements to deal with genetic engineering. Where are these people coming from? The kids are coming out of school without taking science--they will have to.

Foreign language and foreign affairs--our world is small. The foreigners know how to come to our country; Sony can do it, Mitsubishi can do it, Datsun can do it. They can come and open up plants here, learn how we function and operate, but we can't do the same. So foreign affairs, international relations are in, they are not out.

We are no longer all equal. By government we are not equal any more; we have an equal right to try, but government is actually talking about the gifted, and excellence. I know you all know about Thomas Sowell. There was a splendid article that you may have seen in the September 7th Newsweek; he says we are not really equal. When we talk about equal justice we simply mean applying the same rules to everybody. That we are going to do, the government is not going to back down on that. If anybody ever said we were going to turn out the same, we are not, but we are going to have to learn to cope. Peter Drucker, several months ago in the Wall Street Journal, said the demand for education is actually going up, not down. But what's going down, and pretty fast, is the traditional education. Post graduate education of adults is going to be required--business needs people trained, but not trained the way they were thirty years ago. Schools are not expected to solve all the community's problems any more. They are going to expect to turn out people who can cope in this brave new world, and the brave new world is going to require people with literacy. They just can't have degrees; they must be writing literate, reasoning literate, scientifically literate.

Now, what is the Federal role? October 1st was the day the New Deal died. It really did die, but it died not just because of Ronald Reagan, but because as a nation we were really truly out of funds. And the Yelp index that they talk about in Washington has reached the point where one third of all U.S. households were receiving some kind of Federal support (non-cash Federal support). Job gains in Washington, D.C., by the way, doubled the U.S. average in the 1980's. $60 million went out in Social Security fraud. Now then, back to something else, Federal regulation, which is killing us all. Did you know that your hamburger had 41,000 regulations attached to it? 41,000 Federal and state regulations stemming from 200 laws and 110,000 precedent setting court cases on the hamburger. It has really gone a bit far, boggling the mind! So this is what the government is deciding to do with its resources!

In addition, a lot of fraud has been going on. We talk about fraud being used. There is fraud, I'm sure you know by reading the Chronicle of Higher Education and the American Council of Education. There was an amazing statistic a year ago in the state of Ohio. In 1978, $23.6 million went out in default on student loans, which was 76% more than the $13.4 million taken that year in the entire United States in robberies. That was just in the state of Ohio!

The Department of Education has established a national commission on excellence. Try to stop being intimidated by this. How do we go about attaining excellence? What works? That is where you are going to find Federal money and a Federal role -- pursuit of excellence. They are not going to try to tell you how to educate people, but they are definitely trying to be a clearing house on what works -- to show it around, support research. The government will not be pulling out economically for a couple of years. You will find there is not much new money out there. There is continuing money, but as those continuing projects stop there will be some new money. They are not going to zap the programs for Higher Education. They are there, they are on the books. They are not going to fund them with lots of money, but the money that is there is higher than it has ever been. Every year it has gone up. In 1976, $6 billion was the figure; in 1980 it was $40 billion going out all across the board to education from government at all levels. There are going to be large universities doing defense research. They do know that the Federal government has a special role supporting research; institutions cannot be expected to do it on their own. Government believes there is more than one way to accomplish a goal, and they are going to try to demonstrate that. They are not going to try the big stick approach any more. You're not going to have to try to comply as much as you are going to show why this is going to work and how can this be duplicated somewhere else, to work in another way, with changes perhaps, but a basic good idea.

Where is the money going to come from? That is the next topic. Well, some of it is going to come from the Federal government, some of it is going to come from the state; it's going to come from the local area. Your tax bases, I know, from this area are as bad as ours are -- and suddenly everybody is hauling in their horns. Local business actually has a very vested interest in the local higher education community. Many people don't know how to use local business.

Now if you are going for Federal money, what you really should think is "Am I really eligible? How am I eligible? Is the funding available? Who's going to work with me? How will my idea fit into what the Federal government sees as the project?" Plan ahead. You don't even need to apply for Federal money in this year. Think about next year (that is when some of this is going to start coming out), and plan. Plan ahead for the money, stating, "Why do I want to use it? What am I going to use it for?" You'll find it in science and technology, you'll find it in arts and humanities. Those budgets are cut, but not one of those programs so far has been demolished. There is just a funding level that's slightly smaller -- have the best proposal, that's all! There is money in agriculture, money in plant biology, human nutrition, alcohol fuel, special research. The agriculture programs are going right along. The international education programs are funded, they are moving along. There is money in Federal government -- you just have to look for it a little bit more. You'll have to be creative.

The next thing is cooperative arrangements. What a marvelous thing to have you all here with the session this afternoon. You could sit down and figure out how a lot of you are going to go to your state and have them decide how they are going to spend the block grants that turn up. You've got right here an opportunity to create a lobby group of your own for your state -- unite and conquer. Partnerships with schools and institutions of higher education are terribly important now, particularly as elementary and secondary money is coming to the states (the higher education money is staying at the Federal level). But the elementary and secondary programs require in-service teacher training, pre-service training, curriculum development, which are absolute higher education roles. But the money is going to go to the state; it is up to you to get to the state and say, "We can see this needs doing, we have talked to district whatever, we're in this together."

Industry and university cooperation or community college cooperation are very stressed, very important. It's certainly going to show up. If you have it in a proposal with the Federal government they are particularly interested in that, and partnerships of all kinds, also local government in higher education. Dr. Phillips is here from Miami-Dade Community College. You might want to talk to him this afternoon. He is doing something very exciting with the Department of Justice, and high technology at Miami-Dade. Very, very interesting, and he has come all the way from Florida. I think you will be very interested in what he is pulling off with the Department of Justice, for starters.

Giving as a source of funds -- just as sort of a start here I have a couple of things that I filched from the Church of the Latter Day Saints. They did a speech for the National Council for Resource Development in Utah last March. Here's a statistic -- in 1979 (the latest year for which they had figures) Americans gave away $43.31 billion, an average of $118 million a day, every day of the year (this is not Federal). 89.5% came from individuals, 5.3% from corporations and 5.2% from foundations. As they were talking about all this, they were giving some people some neat ideas which I will pass on to you.

There are eight reasons why people give money away. To follow along with the marketing workshop this morning, and while you're thinking about "Where am I going to get this money?," think about these: 1) guilt; 2) desire for recognition or immortality; 3) self-preservation and fear; 4) tax rewards; 5) obligation or feeling of indebtedness (you've come from a foreign country, your congressman gave you a bill to give you citizenship and you owe your new country something so you reward it); 6) desire to be well thought of (we were talking about that this morning regarding the trustees); 7) religious beliefs; and 8) pressure.

While we are talking about this great new world -- this week in the Wall Street Journal it said, "the age of the computer is here, the age of the robot is here." There are jobs, jobs, jobs, but people have to know how to type; they have to know just to use a keyboard.

And last but not least, I'm just going to quote a good little thing that I thought really just sums it up, "A sense of positive purpose," a slogan used by our national leadership. They are resolved to alter course and get the country moving again. This spirit seems to be transmitting itself to the

American people. In growing numbers they sense that America is groping its way back. They are feeling better about themselves, their future, and their country. This sounds pretty great when you have a budget cut. Not that all is well; far from it -- there is a long winding way to go to restore America to where we want it, but at least a solid start has been made. A new mood is taking form, a rekindling of optimism and restoring of hope. A climate is being created, which gives promise of renewed performance, progress and achievement for Americans, both as individuals and as a nation. The gross national spirit is up, and that is aided by technology. We are spending billions on all kinds of good things; that's a good foundation for progress.

Perhaps the most important outcome of the Conference was a heightened understanding of the premise underlying each presentation: postsecondary education need not only be 'acted upon' during the decade of the 80's, but can 'act' itself so as to counter at least in part those difficult circumstances ahead of us.

James H.M. Erickson
President
Northern Montana College
Havre, Montana

ADULT LEARNERS - TRANSITIONS, TASKS AND TRIGGER EVENTS

Wednesday, November 4, 1981 9:45 A.M.

Presenters: Marilyn Clark, Unit Coordinator, Adults in Transition, Education and Work Program, Northwest Regional Educational Laboratory

T.K. Adams, Program Development Specialist, Northwest Regional Educational Laboratory

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OBJECTIVES:

1. To provide an overview of adult development;
2. To determine why a program for adults should be developed;
3. To determine what cultural changes and adults' own transitions imply for program planning and design;
4. To decide how we can meet the challenge.

CONTENT:

The format was lecturette/group discussion to encourage participants sharing of related experience, solutions and ideas.

The overview of adult development included tasks and marker events of adults' stages of development, the anatomy of life transitions, and ways that adults cope with transition.

A discussion of why there should be programs for adults involved a look at changing demographics; and the emerging patterns of worklife, family life, community life, inner life, leisure and education, -- often called a cultural revolution.

A discussion ensued on what these cultural changes and adults' own transitions imply for program planning and design. Participants heard what the experts tell about how adults learn (external degrees, self-planned degree programs); what adults want to learn (credentials, credibility, coursework, problem-solving); when adults want to learn (scheduling issues; sites, support services).

Included in the workshop were outreach issues, such as making contact with unemployed persons who don't exhibit any interest in traditional career planning courses. In addition, discussion revolved around the need for general education. Specifically, much attention is given to skills - directed and occupational curricula, with relatively little attention given to reading, writing, and arithmetic.

THE VALUE OF A LIBERAL ARTS EDUCATION IN THE WORLD OF WORK

Wednesday, November 4, 1981 9:45 A.M.

Presenter: Peggy Marston, Cooperative Work Experience Coordinator in Language Arts and International Education, Lane Community College, Eugene, Oregon

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OBJECTIVES:

1. To discuss the history of liberal arts;
2. To identify skills and abilities of "liberally educated" people;
3. To interact with a liberal arts student;
4. To become knowledgeable about the needs of liberal arts students;
5. To examine creative responses for the 80's.

CONTENT:

The format was a combination of lecture and open discussion to encourage participants' interaction. The presenter brought with her a liberal arts student who also facilitated discussion. Visual aids included an overhead projector and a number of resource books and magazines.

Participants learned that the liberal arts claims a grand tradition extending back to Socrates, Plato, and Aristotle. The classical model revolved around a very specified curriculum for free, young males preparing for a life of leisure. Times have indeed changed. The value of a liberal arts education remains solid; however, its audience, goals, and content have changed in the face of rapid technological advances.

Within this century, if you followed the liberal arts traditions and completed a four-year degree, you were viewed as "educated." Within this view, the liberal arts made three promises: 1) meaningful employment, 2) an income that would double that of a high school graduate, 3) social status. The liberal arts can no longer deliver on these promises and the word is out.

With change the norm rather than the exception, our institutions will be challenged in the 80's. Administrators, faculty and students must address the liberal arts with a new perspective. Students need to prepare themselves with those qualities of mind and character which are required in an open, complex, and technological society; faculty need to understand that the education they received needs to be supplemented to prepare students for a different marketplace; administrators need to recognize and support new ways of solving problems.

Creative responses to the future value of a liberal arts education included the following:

1. Internships in business and industry for liberal arts faculty.
2. Internships through Cooperative Work Experience for students.
3. Increased student awareness of options through academic advising, cooperative programs.
4. Increased use of community resources.
5. Organizing "technical packages" for liberal arts majors suggesting technical skill classes to supplement required courses.
6. Outreach programs for consciousness raising and sharing of information for future college students.

EDUCATION FOR 1984

Wednesday, November 4, 1981 9:45 A.M.

Presenters: Gerald Rasmussen, Dean of Instruction, Lane Community College

Dr. John Rulifson, Dean of Instruction, Southwestern Oregon Community College

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OBJECTIVES:

1. To show how technology can be used and how its uses can be conveyed to the public;

2. To increase awareness on the part of the participants about the importance of the humanities in education;

3. To encourage participants to think about the why's as well as the how's of teaching;

4. Traditional ways of looking at 1984;

5. Orwell's description of "What It Means To Be Human";

6. How a society organizes itself to increase those human qualities;

7. A discussion of the importance of those human qualities.

CONTENT:

The format was a combination slide presentation and lecture. The slide presentation was a color videotape called "The Impact of Technology in Education," developed by James Ellison and shown by Gerald Rasmussen of Lane Community College.

The lecture about 1984 was presented by John Rulifson. The book was discussed in its political terms, as anti-soviet, as anti-establishment, as a prediction for the future and most importantly, as a description of our own time.

George Orwell's book, 1984, has been one of the most widely read books of the last thirty years. It has been read by millions of college students and has been soundly criticized by the political factions of both the left and the right. Much of the discussions of the book have centered on its political impact, but it also provides us with a way of looking at education.

Orwell spends a great deal of time talking about the ways in which a society can be controlled and the fact that the technological revolution has increased and, for some at least, made inevitable that society will be controlled. 1984 is, however, an extremely hopeful book, for Orwell talks about what man is and in so doing, defines what an education should be. He talks about who should be educated and what kind of education they should have and educators who are

within institutions for which society has conflicting goals. Orwell provides a mandate for a particular kind of education which is essential, both for the growth of the individual and the societies in which we live.

When I returned from the conference I began to realize how important we all are to the health of the school and its community. We need to be involved individually and corporately for the image to grow and be a trademark in the community. We each have a particular gift to offer our individual schools and we need to be sensitive to it.

I appreciate the opportunity I had to attend this session. Not only did I get to meet many new faces, I realized the academic community needs to pool its resources together so the students can receive the greatest benefits available to them. I trust in the future more of these workshops will open up, and that more discussions will be born between schools, people and friends who work together to see education be a more positive step to the learning process of life.

Larry E. Hardin
Television Producer
Sheldon Jackson College
Sitka, Alaska

"MULTICULTURAL EDUCATION: A POSITIVE RESPONSE TO CHANGING EDUCATIONAL REALITIES"

Wednesday, November 4, 1981 2:00 P.M.

Presenters: Dolores Heisinger, Director, Multicultural Inservice Training Project, Northwest Regional Educational Laboratory

Karen Ann Stone, Developer/Trainer, Multicultural Inservice Training Project, Northwest Regional Educational Laboratory

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OBJECTIVES:

1. Five approaches to conceptualizing and understanding multicultural education;
2. An opportunity to reflect upon and share attitudes towards cultural and multicultural experiences;
3. Five stages of ethnicity to aid in understanding one's self and others;
4. An opportunity to increase awareness of problems in intercultural communication due to differences in perception and values across cultures;
5. Ideas for infusing multicultural education into postsecondary and higher education institutions.

CONTENT:

This workshop touched upon a variety of multicultural education concepts covered in greater depth in a 30-hour program of professional development for teachers designed by the Multicultural Inservice Training Project of the Northwest Regional Educational Laboratory. Participants in the session were provided with a conceptual framework for multicultural education and had the opportunity to engage in small group experiential activities focusing upon their attitudes and perceptions about culture, ethnicity and multicultural experiences.

The last decade has witnessed the emergence of multicultural education as a new process in educational programming in the United States. Such innovations have evolved from efforts to address the complex relationship between teachers and students from different cultures and in response to the need for more effective teaching strategies for use in multicultural settings.

When students enter the formal learning environment of the school, they bring a set of cultural values and socialization experiences which are firmly established in the cultural conditioning of their cultural group identity and heritage. In the interactive setting of the classroom, it becomes the critical role of the teacher to be aware of intercultural communications, to be able to resolve cultural clashes, and to maintain a flexible, yet consistent, learning approach which complements different socialization patterns.

APPLYING RESEARCH AND DEVELOPMENT PRODUCTS TO EDUCATIONAL AND ADMINISTRATIVE PROBLEMS IN HIGHER EDUCATION

Wednesday, November 4, 1981 2:00 P.M.

Presenter: Jack Allen, Director, Regional Services Program, Northwest Regional Educational Laboratory

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OBJECTIVES:

1. To establish a rationale for applying research and development products to educational and administrative problems;

2. To describe the processes necessary for applying research and development products to educational and administrative problems;

3. To involve participants in several aspects of applying research and development products to educational and administrative problems through activities.

CONTENT:

The workshop involved presentation of the process of utilizing research and development products for the improvement of instruction and administration in the educational field. This process usually involves the following steps:

- Problem Clarification or Definition
- Development of Scope of Work
- Finding Appropriate Research and Development Products
- Adaptation of Research and Development for Specific Applications
- Implementation of Research and Development
- Evaluation of the Process and the Results

By faithfully working through each of these steps, one can bring about orderly and thoughtful changes and improvements in both administration and instruction.

Problem clarification or definition is probably the most neglected yet one of the most important steps in finding solutions to educational problems. Since education is such a complex process, it is important to follow an orderly procedure in defining the specifics of any problem which arises prior to resolving the problem. For example, if it appears that college students are not performing at expected levels in the Biological Sciences, one should not jump prematurely to poor reading skills as the culprit. Time should be devoted to the examination of the data which led to the original conclusion that students are performing at a lower level than might be expected. In addition one must examine a wide variety of data such as course syllabi, student background, and student performance in other areas of study. To do so systematically requires that examiners have a framework within which to work and a set of tools which provide the processes for gathering and analyzing pertinent information. A planning model which starts with setting goals and ends with an evaluation process can serve well for this purpose.

Development of scope of work should follow any agreement upon the nature of the problem. The purpose of the scope of work is to set out in writing exactly what is going to be done by all parties involved. It should be clearly written so there can be no misunderstanding about either the problem or what is going to be done, who is going to do it or when it is to be done.

Finding appropriate R & D products can present a rather interesting and perplexing set of problems. There are well over one hundred data bases which can be searched, so careful preparation is advised. Pick out the best descriptors you can, then contact a specialist in organizing and conducting searches to help you. Even with care you will find that much of what you get is not relative. Selecting the R & D most appropriate for the problem and the setting will take about three sessions of reading. They are:

- Original Screening of Abstracts
- Careful Reading of Summaries Selected from the Abstracts
- Indepth Study of Remaining

While some selection will be made on the basis of experience and bias, it is important to select on the basis of matching goals, objectives and outcomes of the products with the needs related to the problem.

Adaptation of R & D products for specific applications is a process of modifying the R & D product so that it can be used in the work setting. Much R & D comes to us in the way of descriptions and reports of results. These are not usually readily usable as is, so it is necessary to convert this type of data to such usable form as training agendas, handbooks, and instructional materials. At this stage it is of utmost importance to work closely with those who will be using the R & D adaptations in their work settings. This early involvement will help in the implementation phase.

Implementation of R & D adaptations has been studied extensively by such organizations as Rand Corporation, Stanford Research Institute, Abt Associates, and The NETWORK, INC. Key ingredients for success in implementation are:

- Quick Visible Results
- Support and Commitment of Leadership
- People Believe it Will Work
- Truly Satisfying Local Need
- Funding Mostly from Local Level

Evaluation of the process and results will provide important data about ongoing and eventual end results. The ongoing evaluation of the process will help by providing feedback about how well things are being done and the reaction of those affected. Results of evaluations will provide data which can be used for modifying and improving the ongoing application.

"MEETING THE COMMUNITY'S ECONOMIC NEEDS - A MODEL PROGRAM FOR CONTRACTING WITH BUSINESS AND INDUSTRY"

Wednesday, November 4, 1981 2:00 P.M.

Presenter: Donald M. Fiser, Director, Institute for Community Assistance, Portland Community College

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OBJECTIVES:

1. How to initiate and develop custom designed programs for business, industry, and public agencies;

2. Examine processes necessary to develop programs.

CONTENT:

This workshop focused on a tested and proven approach that colleges and universities can use in meeting the specific educational and training needs of business, industry, and public agencies.

Specifically, the workshop dealt with the following areas:

- The Institute for Community Assistance - What is it?
- Identifying the Customer - Who's out there?
- Contacting the Customer - There is more than one way.
- Sitting Down with the Customer - Finding out what the customer wants and what Portland Community College can offer.
- Your Ability to Deliver - Or can you do what you promised?
- Pricing the Service - Don't give away the store.
- Writing a Special Agreement for Contracted Services - Don't forget it's a legal document.
- Promotion and Publicity - Who is going to do what?
- Textbooks - Don't forget planning for this one.
- Support Services - Make these plans ahead of time.
- Last Minute Details - Or people will be people.
- Registering the Students - This should be a pleasant experience for you and the customer.
- Billing the Customer - We need to be paid for our services.
- Evaluating the Custom Designed Program - This process will give you valuable information for the future.
- Customer Follow-up - Find out where the customer wants to go from here.

"LIBERAL SKILLS AND COGNITIVE MAPPING"

Wednesday, November 4, 1981 2:00 P.M.

Presenter: Dr. Urban Whitaker, Council for the Advancement of Experiential Learning (CAEL) Regional Manager for California, Hawaii, Nevada, and Arizona

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OBJECTIVES:

1. Nature and identification of career-transferable liberal skills;
2. Assessment of liberal skills;
3. Facilitation of learning of liberal skills;
4. Approaches to "mapping";
5. Production of "maps" for learning liberal skills.

CONTENT:

The presentation was a "working" workshop in two parts devoted to the development of personally useful products by and for each participant.

In the first session the product was a personalized plan for identifying, facilitating and assessing the career-transferable liberal skills that can be acquired during co-op assignments. A slide/tape presentation of 14 minutes introduced the discussion. A list of 76 career-transferable liberal skills developed by Paul Breen at San Francisco State University was discussed and used by participants in developing their plans. Various methods of facilitating and assessing liberal skills developed by the group were: models for journal or log writing; report forms for co-op students assigned at long distances from the campus; assessment scales; and exercises to facilitate experiential learning.

The second session was built on the base of the first. In particular it was recognized that the crediting of liberal skills learning requires the development of competency-based curricula. The discussion was introduced by a 15 minute slide/tape presentation of CAEL's (Council for the Advancement of Experiential Learning) project on "Clarifying Learning Outcomes". Then, in a working session, each of the participants "mapped" the liberal skills learning outcome of one or more instructional units on their own campuses. For those who are directly involved in instruction, or whose programs rely on individual study of co-op credit, the "mapping" of outcomes was done as a proposal rather than as a reflection of existing courses.

I was impressed by the futuristic view of the role of postsecondary education institutions in meeting society's needs. The conference focused on operational and programmatic priorities as well as on tactical planning strategies. I would like to see a follow-up conference with more in-depth focus on specific critical topics for postsecondary administrators.

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INTERNATIONALIZING THE CURRICULUM

Thursday, November 5, 1981 9:30 A.M.

Moderator: Mordechai Rozanski, Director of International Studies, Pacific Lutheran University

Panel: Tillie Harris, Program Director of International Education, Mount Hood Community College

Brinton Sprague, Chairperson, Social Science Department, North Seattle Community College

Donald Distad, Professor Emeritus and International Education Coordinator, Bellevue Community College

Steven Hamernyik, Instructor of Political Science and History, Social Science Division, Bellevue Community College

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OBJECTIVES:

1. To define International Studies;
2. To increase awareness of the need to internationalize the curriculum;
3. To discuss possible approaches to implementing and infusing International Studies in the curriculum;
4. To discuss research findings which exemplify the need to increase student awareness to an interdependent world;
5. To exemplify the implementation of international programs in the Pacific Northwest on the two and four year levels.

CONTENT:

1. During this session, Dr. Rozanski discussed the recent research findings which demonstrate that the American public is sadly lacking in the knowledge of languages and international issues. He briefly discussed the possible ways in which this could be remedied. He exemplified the solutions by describing the efforts of the Pacific Northwest International/Intercultural Education Consortium and the two and four year colleges in the Pacific Northwest to infuse International Studies in the curriculum, train faculty, and increase community awareness.
2. Ms. Harris discussed the need to train faculty to think globally and teach students to view issues on an international level. Faculty development, curriculum development, and community outreach are the three essential components to developing a sound International Education Program at any campus. Faculty development could take place with limited resources if existing in-service funds are directed

to training staff to internationalize curriculum. Curriculum development involves infusing modules and/or instructional units into existing courses. Ms. Harris continued to say that education for an interdependent world must include sensitizing the community to international issues and concerns.

3. Mr. Sprague discussed at length the need to develop courses in International Studies which have a relevance to students both in terms of their own world view and on a global level. He overviewed the course objectives for the Global Perspectives course as follows:

   1. To create a "world view"
   2. To enhance a student's understanding of contemporary problems
   3. To develop an understanding of interrelationships and interdependency in the contemporary world
   4. To create a greater understanding of foreign cultures--their values, lifestyles, and current conditions
   5. To investigate various solutions to contemporary problems and allow students to develop intelligent choices to guide them in their personal lives.

4. Mr. Distad and Dr. Hamernyik described the steps which Bellevue Community College took in order to organize and implement a degree program in International Studies. They were as follows:

   1. A campus-wide committee was formed.
   2. Dialogue between Bellevue Community College and the University of Washington was the second essential step.
   3. Inventories of curriculum offerings were taken at Belleuve Community College which corresponded with those at the University of Washington.
   4. Courses and course content were submitted to the University of Washington for review and approval.
   5. The first set of core courses on schedule for Fall, 1981 were outlined.
   6. Final approval for the International Studies AA degree from the curriculum Advisory Committee is presently being sought.

MICROCOMPUTERS IN HIGHER EDUCATION: THE STATE OF THE ART

Thursday, November 5, 1981 9:30 A.M.

Presenter: Dr. Judith Edwards-Allen, Director, Computer Technology Program, Northwest Regional Educational Laboratory

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OBJECTIVES:

1. General picture of the state of the art of microcomputer technology and its use and future in higher education;

2. An understanding of the range and quality of available software for postsecondary education;

3. Awareness of resources available for postsecondary users.

CONTENT:

This session began with a discussion on the current state of computer technology, and predictions for the future. At the present time, a lot of information is available to those with access to a terminal through various data banks and catalogs. Conferencing via computer is now possible also. By 1990 most people will have a microcomputer in their homes, and will be able to do much of their work using telephone-computer hookups.

People will need to be computer literate; the method of education may be through special courses, or computer technology may be taught and used across all disciplines. Responsibilities of postsecondary institutions will include educating individuals to provide leadership in a technological society, training the general population to deal with increasing technology, and training specialists who will produce new technology.

The capabilities and limitations for instructional and administrative computer uses were presented. The components of a microcomputer were described and demonstrated. A hands-on demonstration of instructional software from MicroSIFT and CONDUIT (the clearinghouse for postsecondary courseware) was presented.

CREATIVE RESPONSES TO "ARTESIANS," "ATTRITORS," AND OTHER TROUBLESOME CRITTERS OR WHAT WORKS IN STUDENT RETENTION: DOES IT COST ANY MONEY, AND DO WE NEED IT TODAY?

Thursday, November 5, 1981 9:30 A.M.

Moderator: Guy C. Pepoy, Director of Counseling and Testing, Edmonds Community College

Panel: Dr. Frank Price, Associate Director, State Board for Community College Education

Dr. Linda Reisser, Dean of Students, Whatcom Community College

Dr. Larry Tadlock, State Staff Development Coordinator for Adult Basic Education

Alan Torgerson, Project Director, Learning Assistance Support System for Washington Community Colleges

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OBJECTIVES:

1. To identify current policy and programmatic developments that influence student retention;
2. To provide information on innovative student retention programs;
3. To identify effective retention practices for the adult learner.

CONTENT:

The small number of workshop participants made an informal group structure possible. The members of the workshop panel introduced themselves and described their backgrounds, present positions and their areas of expertise and interest. Workshop participants were also asked to introduce themselves and relate their areas of interest and concern. The issues they identified were as follows:

A) Policy factors (at the state level) that influence student retention.

B) Institutional factors that influence student retention.

C) Classroom strategies designed to increase student retention.

An informal roundtable discussion ensued where each of the members of the panel addressed the issues stated above. Information presented included:

A) Effective retention practices for the adult learner.

B) The American College Test Research titled, What Works in Student Retention.

C) A new State of Washington project titled, A Learning Assistance Support System for Washington State Community Colleges.

D) Developmental education programs and their ability to increase student retention.

E) Current trends in legislative policies and the projected influence on current and planned retention efforts.

At the conclusion of the panel discussion there was an attempt to weave the various programs, concepts, policies and plans addressing student retention into an integrated fabric, having a clear, articulate and functional design.

Among the material presented were some recent research findings. Most common retention efforts, listed in order with the most frequently tried indicated first, included: improvement of academic advising, special orientation activities, exit interviews, special counseling programs, early warning system, new academic support/learning services, students as peer advisors and counselors, curricular innovations for credit, expanded placement services, new extracurricular activities, undeclared major services, faculty/instructional development. Positive characteristics linked to retention were: caring attitude of faculty and staff, high quality teaching, adequate financial aid, student involvement in campus, high quality advising, excellent counseling services, excellent career planning services, concern for student/institution "fit", admissions geared to graduation, early alert system. Negative characteristics linked to attrition included: inadequate academic advising, inadequate curricular offerings, conflict between class and job, inadequate financial aid, inadequate extracurricular programs, inadequate counseling support system, inadequate academic support services, inadequate cultural and social growth, inadequate career planning services, inadequate student-faculty contact. Characteristics of the dropout prone (from most frequent reason) were: low academic achievement, limited educational aspirations, indecision about major/career goal, inadequate financial resources, economically disadvantaged, first-generation student, commuter.

MARKETING: DEVELOPING AN INSTITUTIONAL STRATEGY

Thursday, November 5, 1981 9:30 A.M.

Presenter: Dr. David L. Kest, American Council on Education/Higher Education Management Institute, Director, Western Program Center

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OBJECTIVES:

1. To develop a working definition of marketing;
2. To analyze the exchange relations between one's home institution and its publics (this involved identifying priority publics and relating them to the institution's mission and goals);
3. To analyze various promotional media and identify specific promotional strategies.

CONTENT:

This workshop focused on marketing as an institutional concern, as opposed to viewing marketing as the responsibility of a single individual or office. Utilizing materials developed by the American Council of Education/Higher Education Management Institute, the session focused on several goals: to increase understanding of marketing as a critical institutional function; to begin identifying specific marketing strategies; and, to provide a forum for the exchange of ideas between workshop participants.

During the workshop three topics were discussed:

I. What Is Marketing?
II. Exchange Analysis
III. Use of Promotional Media

After arriving at a shared operational definition of marketing, the participants explored the differences between marketing and public relations. It was agreed that public relations should be viewed as a tool of marketing; a marketing plan must first be developed, recognizing its connection with institutional mission and goals.

The majority of the session focused on ways to define the exchange relationships between an institution and specific publics. It was agreed that often publics are defined in terms too general to be of value in marketing. Several exercises assisted the workshop participants in delineating the publics served by their institution.

A brainstorming session allowed participants to share ideas for use of promotional media. Several suggestions offered by the group are listed below:

- appoint media professionals to various campus advisory groups

- establish permanent information booths in local shopping centers
- recognize the need for media promotion within the institution
- distribute promotional/program materials to locales where clients spend time (eg. beauty salon, department store)
- direct media promotion to specific demographic populations (eg. a neighborhood within a city, specific job specialties)

The workshop concluded with a discussion of several organization models in which the marketing function is coordinated through a specific position or office within the institution.

SMALL GROUP ACTION PLANNING AND LARGE GROUP FEEDBACK

Thursday, November 5, 1981 1:30 - 3:30 P.M.

The conference culminated with an opportunity for individuals to assess existing realities in postsecondary and higher education and to explore adaptation of various creative responses to their institutions. The method for this action planning involved facilitated small group discussions followed by a large group session. These final sessions provided participants with a personal synthesis of the two-day conference.

Specific realities identified by the participants in their small group sessions included:

Increasingly limited fiscal resources accompanied by escalating costs of technical and other training;

Changing institutional missions;

A renewed emphasis on minimum competency standards which is leading to a reduction in innovative programs;

Changes in student populations and their increasing need for basic skills, career-oriented programs, and financial aid;

Competition from business and other public agencies for educational and leisure time activities;

Lack of qualified staff trained to work with new technologies;

Collective bargaining.

After each small group identified the changing realities that their institutions were facing, participants brainstormed various responses to the existing realities. These responses were then evaluated by the groups on the basis of cost effectiveness, practicality, and creativity. Significant responses identified by both groups included:

Establishing partnerships with business, industry, and public agencies in terms of training and use of facilities and equipment;

Streamlining the curriculum to provide greater scheduling flexibility for students;

Establishing minimum competency standards;

Providing inservice training and staff development to allow for technological changes;

Furthering greater cooperation between two and four-year institutions;

Instituting realistic training reflective of employers' needs;

Substituting quality for quantity;

Relying on advisory committees and consortial and cooperative arrangements;

Increasing use of technology.

Participants in these final sessions, while interacting with a wide variety of educators, were able to identify courses of action that were applicable to their own institutions.

Dale Parnell's address helped me put the implications of experiential learning into perspective with the realities of the world of work now and in the future. The workshops I attended were excellent and provided valuable information which will be useful in building our Cooperative Education/Internship Programs at University of Puget Sound.

I returned to UPS with many ideas which I now am working on to help improve and expand our program. I also gained a better understanding of how to deal with the dynamics at work in a University.

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CREATIVE RESPONSES TO CHANGING REALITIES

A Conference for Northwest Postsecondary and Higher Education

November 3-5, 1981
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The Northwest Regional Educational Laboratory (NWREL) in Portland is an independent, nonprofit educational research and development organization, governed by a 34 member Board of Directors from the Pacific Northwest region. The mission of the Laboratory is to assist education, government, community agencies, business and labor in improving quality and equality in educational programs and processes. The Laboratory currently conducts 21 programs in the major areas of Instructional Improvement, Evaluation and Research, Multicultural Education, and Problem Solving Services.

The Northwest Program Development and Coordination Center is located at Highline Community College near Seattle and serves postsecondary and higher education in the Pacific Northwest. Functional areas of Center expertise include consortium formation and management; planning and conducting workshops and conferences; provision of technical assistance, resource development, and information sharing services; and facilitating linkages between postsecondary institutions and other educational and/or community organizations. Among the programmatic areas of Center involvement are Cooperative Education, International Education, and Consultant, Trainer and Management Training.